SUPPLEMENT.

je Kining Inumal,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

o. 1389.—Vol. XXXII.]

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LONDON, SATURDAY, APRIL 5, 1862.

STAMPED SIXPENCE.

ACCIDENTS IN COAL MINES-No. I.

[COMMUNICATED.]
int Inspection of Coal Mines has become one of the institution ountry, concerning which, notwithstanding great difference of opidoubtedly exists respecting it, we cannot perhaps find one person who advocate its termination, or express a desire that it should not become and permanent institution. Its proper object and aim is the prevention ses of accidents, but more particularly of fatal accidents, and, so far object and intention is concerned, it may be considered as a means speinstituted to prevent accidents. Hitherto it may properly be termed spection or investigation after the occurrence of fatal accidents. in this capacity it has, no doubt, operated in inducing a certain to fincreased precaution, and thus indirectly it has, at least, pret the increase of, if it has failed materially to decrease, the number of

in this capacity it has, no doubt, operated in inducing a certain to of increased precaution, and thus indirectly it has, at least, pred the increase of, if it has failed materially to decrease, the number of eccidents; and, on the whole, the practice of mining has, at least in lease, been improved through its agency.

interests of the employer and employed are so identified in the press of fatal and other accidents that, a priori, we would have expected at grounds could not have existed for such an institution. Whother to rincorrect, it is very generally considered that the very necessity the an institution more or less implies an imputation on colliery manet—in this respect, that it has either been incapable or neglectful to whom the working of collieries in its varied departments has been ted, either not having understood their duties, or understanding them, from mistaken motives of economy, or other motives decidedly more ditable, have failed to perform them. This impression, if not orise, has been very much increased by the post obit reports of most of aspectors. We find in almost every report of almost every Inspector agrees statements that the most simple, ordinary, and obvious precautare in many instances been long and habitually neglected; but, unstally, this was unknown, or at least not officially published, until some fatality has occurred. Having reference to these reports, we that if the that the Inspectors do not, to the extent it is exceedingly ble that they should in order to provent fatal accidents, inspect columns of the provent of the provent fatal accidents, inspect columns objectly obliterated, state of the workings, able reports clearly and atably proving how the accident has occurred, and how simply, oby, and certainly it might have been prevented: but for prevention—linary object of inspection—it is too late, too late for over. How is it is because their powers, time, or inclination is defective? If their s, let them be increased to the utmost extent requisite for the better ration of li

manner. For my own part, I should be glad indeed were it poshave the Inspector's assent or dissent to the arrangements for
daily.

comers of colliery property have an important interest in the proper
ment of this question, and that interest will certainly be advanced by
ag so on a just and permanent principle. The item of expenditure,
spaid to persons suffering from accidents," is a very considerable
owhich is to be added the loss of their workmen's services, and while
abled, their continuing, of course, the occupants of dwelling-houses
dor rented at their cost, this latter charge usually becoming in the
macounties permanent to the survivors in cases of fatal injury. In
as of serious explosions there is serious destruction of property and
pecuniary loss, amounting, in some cases, to thousands of pounds, in
cases producing complete bankruptcy and ruin, this being exemin the case of Lund Hill, Risca, and, as is now current, in that of
set injury in the subsequent difficulty of obtaining a sufficient supstady, good workmen; and in all cases the expense which was reto prevent such calamitics is subsequently to be incurred, thus
the expenses to be incurred of both bad and good arrangements.
The prevent such calamities, is a subsequently to be incurred, thus
the expenses to be incurred of both bad and good arrangements.
The owners of collieries in all cases, almost without exception, are
and calamities, is a fact which I have the utmost confidence and
as to endorse. It is not from any desire to avoid the necessary exof portiding proper safety, nor yet from the want of an ardent desire
their works and workmen as safe as the nature of the work will
that they will demur to the extension of the principle and practice
their works and workmen as safe as the nature of the work will
at they will demur to the extension of the principle and practice
and arrangements. They justly demur to submit to the arbitrary
of any Inspector, how ever adequate he may be; but there can
incure inspection of their mines, nor to the r

ensure safety; and that the Inspector should inspect and give a full and detailed report of such inspection at least once a year. Wherever collieries are possessed of proper arrangements, there can be no possible objection to such a proceeding; where they are not, it is/an indespensable necessity. The owner in most cases is desirous to make most complete the arrangements for safety, and is usually fully supported by the person he appoints as his manager; but neither the owner nor agent can constantly ensure that every officer of every grade shall strictly and fully attend to his duties; and as a guarantee on behalf of both owner, agent, and the public, the public functionary—the Inspector of Mines—ought to step in and sanction or object to the mode of providing and effecting the general arrangements, provisions, and regulations requisite to render every colliery as safe as the nature of the work will admit. This more frequent and minute inspection and reporting on the part of the Inspector, independent of accident, cannot reasonably be objected to by the owner or agents, and would contribute, to an extent not hitherto effected, in improving and perfecting underground arrangements, and would result in lessening the number of fatal accidents, in giving greater security to mining investments, and in underground arrangements, and would result in lessening the number of fatal accidents, in giving greater security to mining investments, and in satisfying the public mind in the event of a serious catastrophe, attended with fatal results; for no mine agent would allow his colliery to continue in an unsatisfactory condition when he knew it would be published to the world at least annually, and would, of course, become evidence of the state of the mine at the date of inspection. Preventive inspection involves examination previous to the occurrence of fatal injury, at intervals not too distant. We find the fatal accidents are classified by the Inspectors as follows:

—those srising from explosions of fire-damp, falls of coal or stone, shaft accidents, and sundries. The present arrangement of inspection districts has been in operation since 1855, and principally under the same Inspectors. In referring to them I will, therefore, in all cases, give the names of the Inspectors now having charge of the districts, instead of that of the districts.

Statement showing the number of deaths from each principal cause, as

Statement showing the number of deaths from each principal cause, as classified by the Inspectors, for five years ending 1860:

7		Causes o	of death.	. 1		Quantity of	Deaths
_	Explos.	Palls.	Shafts.	Bandries	Total.	conts reised annually. Tons.	for each 1,000,000 tons raised.
1856 1857 1858 1859	236 377 215 95 363	399 372 366 399 388	210 162 172 191 182	188 208 178 219 175	1033 1119 931 904 1108	71,787,552 74,611,941 73,725,895 78,278,957 82,662,702	14·38 14·99 12·63 11·55 13·40
Totals	1286_	.1924	917	968	5095	381,067,047	13.37
Average	257	385	183	194	1019	76,213,409	13.37

Had the accidents been gradually decreasing the later years ought to have been in all cases below the average, hence the reason I give the average. This statement shows the very slight improvement that has been effected for five years, the only portion of time during the present system of inspection that the returns can be fully depended on. The difference between the highest and the lowest is seen thus—

		Deat	hs per	1,000,00	00 tons	raised.	
1857—highest year				******			
Years	·61 1856.		1.59		2·36 1858.		3·44 1859.

The greatest difference between the highest number of deaths per million tone raised and the lowest is only 3.44, and the greatest difference between the mean and the lowest is 1.82 less, and the highest 1.62 more. In any case the difference is not very marked, and the year 1860 is a little above an average of the whole, which it ought not to have been were the deaths uniformly decreasing.

Taking the year 1856 to be represented by 100, the proportionate loss

or me	in each will be re	presented as	monows:	-	
Years.		o. of deaths.		N	o. of deaths.
1856	*************	1033 = 100	1859	***************	904 = 87.51
1857	**************	1119 = 108.32	1860	*****************	1108 = 107.26
1858		931 = 90.12			

This does not show any uniform decrease, nor does it show the proportion of deaths to the coals raised, but by taking the number of deaths to each 1,000,000 tons of coals raised it will be thus:—

	No. c	of deaths per	Proportio			Difference	
Years.	1,00	0,000 tons.	1. roportio	n. I	ncrea	se. D	ecrease.
		14.38					
		14.99					
		12.63					
		11.55					
1860	*********	13.40	93.61		-		6.99
Mean	*********	13.37	92.97		-		7.03

Except in the year 1859, which was unusually low in deaths from explosion, this shows but a trifling decrease, which will perhaps be more apparent if we take the mean of the five years to represent 100, thus:-

Years.			1,900,00			Above.		riciom.
Average	13.37	=	100 pe	rcent.	*******	-		
1856	14.38	etern.	107.55	99	*******	7.55		-
1857	14.99	-	112.11	**		12.11		-
1858	12.63	ZHR.	94.46	. 22	******	-	******	5.54
1859	11.55	===	86.39	99		-		13.61
1860	18-40	-	100.55	99		0.22		-

This shows for the year 1858 a decrease of 5:54, and for 1859 a decre of 13:61; but for 1860 an increase of 0:22 per cent. on the average of the whole. The decrease on the whole is so trifling that I think we may corwhole. In that during these five years of inspection little more has been effected than preventing an increased rate of deaths in proportion to the coals raised.

If we examine the number of deaths arising from each general cause, as classified by the Inspectors, we will see the proportion of each:-

Explosions	1286 = 25.25 per cent.
Falls	1924 = 37.75
Shafts	
Sundries	
***************************************	-
Total	5095 = 100.00 per cent.

	18	356.	1	857.	1	858.	1	859.	1	860.
	Deaths.	Per cent.	Deaths.	Per cent.	Deaths.	Per cent.	Deaths.	Per cent.	Deaths.	Per cent.
Explosions Falls Shafts Sundries	236 399 210 188	22:84 38:63 20:33 18:20	377 372 162 208	33·69 33·24 14·48 18·59	215 366 172 178	23·09 39·31 18·48 19·12	95 399 191 219	10·50 44·14 21·13 24·23	363 388 182 175	32·76 35·02 16·42 15·80
Total	1033	100.00	1119	100.00	931	100.00	904	100.00	1108	100.00

We here see the proportion of deaths from each cause for each year, and may easily compare it with the proportion for the whole period. M. E. [To be continued in next week's Mining Journal.]

NATIONAL ASSOCIATION FOR THE RELIEF OF BRITISH MINERS.

A public meeting in furtherance of the important and benevolent objects of this association was held on Thursday, March 27, at the Hanover-square Rooms,—Mr. Samuel Gurney, M.P., President of the Council, in the chair. On the platform were Sir Fitzroy Kelly, Q.C., M.P., Mr. J. P. Hennessey, Mr. Henry Pease, M.P., Colonel Brownlow Knox, M.P., Mr. G. H. Whalley, M.P., G. J. Cockerell, Esq., J. Marshman, Esq., W. A. Thomas,

Esq., E. T. Wakefield, Esq., W. M'Garel, Esq., &c.

The Charrman, in opening the proceedings of the meeting, said: As the President of the National Association for the Relief of British Miners The Chairman, in opening the proceedings of the meeting, said: As the President of the National Association for the Relief of British Miners I occupy the chair to-day, and it now becomes my duty to state a few facts about the object of this meeting. As I shall be followed by Sir Fitsroy Kelly, who has taken much interest in the welfare of this important class of our operatives, and has kindly consented to move the first resolution. I shall occupy but little of your time. It may be stated that something like 300,000 of our fellow-countrymen, having a million and a half dependent upon them, are engaged in mining operations, that 1000 are killed every year, and 10,000 every year loqued. By the fearful catastrophe at Hartley 204 poor fellows were destroyed, and 400 persons left dependent upon charity. The public at once came nobly forward to the rescee; from one end of the country to the other subscriptions poured in, and 40,000, now remains over and above the amount that was said to have been required for their necessities; but another fearful calamity has occurred in South Wales, and whilst for Hartley more than double the amount needed has been subscribed, Gethyn je is almost diaregarded, and the bereaved there are still left in the deepest distress. (Hear, hear.) Now, these accidents clearly show the precarious nature of the miner's occupation, and the disparity between the subscriptions for Hartley and for Gethyn proves the bassolute necessity for a well-regulated institution, such as that which I am now pleased to represent. (Applause.) I am glad to say the miners desire as far as possible to provide for themselves; they do not wish to be dependent upon our charity, they ask only on encouragement, and some assistance in the establishment of an institution which will secure to them well-regulated rollef, education, and all that sclence can accomplish to mitigate the dangers to which they are exposed. (Hear, hear.) The objects of the association are, therefore, threefold:—I. Selence, whereby accidents may be av

Mr. Chnirman, ladies, and gentlemen, I have been requested to propose to this meeting the first of a series of resolutions, with a view to the formation of a Society for the Benefit of British Miners. Unconnected as I am with mines and mineral property, it, perhaps, may be expected that I should offer some apology for having taken thus early what appears a prominent part in endeavouring to establish a society of this character. I may say, to deal briefly with all that is of a preliminary nature, that a few gentlemen of philanthropic character, with highly benevolent objects, have for some months past dedicated their labours unceasingly to the collection of facts in relation to the moral, the physical, and the social condition of some individuals—and I rejoice to see amongst them, the first, my honourable and worthy friend, if he will permit me so to call him, who has done us the favour to take the chair (hear, hear)—has been called; and those gentlemen have likewise solicited to some extent the attention of the public to those considerations which have led to a desire on the part of those who now appear before you to establish a society for the objects which, briefly, indeed, but I hop intelligitly and satisfactorily, on the present occasion I shall have the honour to detail to you. It appears, from a cursory review sit the condition and number of persons engaged in the mines of this country, that a state of things exists imperatively calling for the attention, for the sympathy, and for the support of the entire public, the whole community of this reain, in favour of a body of persons who have most especial claims to their consideration. (Hear, hear.) I might state that no less than 300,000 of our fellow-men, our

You will, perhaps, be somewhat surprised to learn that the average duration of the life of the miner is 27 years—that is, taking the whole class collectively: 27 years, an age when those who have attained it are still admitted to be amongst the youth of the people! 27 years are the average duration of the life of a miner; 43 years are the average people! 27 years are the average duration of the life of a miner; 43 years are the average of the still admitted to be amongst the youth of the people of the people of time, but from want of the kin hope the nation will permit it for no great it has pleased Proof an agricultural labourers. (Hear, hear.) We find, therefore, that it has pleased Proof and which, I trust, will be adopted in this country for the protection of the miners—chaling the whole body of them broughout the country—taking them collectively, they are destined to 16 years less of life than the other, the fellow—class—the agricultural labourers of the country. I need not detain you; above all I need not, I am sure, appeal to your aympathles by pointing out to you the unfortunate condition in reference to health and life in which this numerous class of our fellow—creatures is placed. I need not, I am sure, enter into any further details. You must be aslisted from the few words I have now addressed to you that their case ions calling for the sympathy and support of the people of this country. (Applause.) Now, it is not only in their own peculiar and personal condition that they need that to which I am now appealing before you, for in consequence of the kind of life they lead, to which they are condemed, and the narrow means they have for support, but in consequence sill in they are condemed, and the narrow means they have for support, but in consequence sill indicate the personal condition that they need that to which they are decreased to you may be admitted to which they are decreased to you may be admitted to which they are decreased to the personal condition that they have personal to the personal con loss of life in the Gethin Collegy, in Wales, where there certainly were only 50 persons to whom the accident proved fatal—204 was the number of the survivors. A similar to be a second t wide for the survivors of those who may perish, and administer relief to those who may be merely injured, and whose injury may be either permanent or temporary, to provide, also, against periods of sickness, or when unable from other causes to work: 65,000f. a-year would be raised by id, per weak from the miners themselves, a sum amply sufficient for those beneficial purposes. Well, why should not this be attempted? (Hear, hear.) In Beigium, in Prassia, where the mines and mineral wealth of those countries are insignificant compared with that which exists and which is to be found in England, where, of course, the number of those who are interested in such a scheme are, comparatively, very small, societies are established everywhere; they have committees; they subscribe what is a little more, but very little more, than what I am expecting on the part of the miners of England. They subscribe ld, in the 1t. sterling out of their sarnings, and from that subscription, doubted as its by contributions of a similar amount from the owners of the mines, an ample fund is produced, not only to provide for the relief of the sufferers under casualities and calamities such as we are now considering, but to provide for the widows of those who die a natural death, and provide some degree of education for their children; to provide, also, not only against all the misortunes, but against the ordinary exigences of life beyond the common daily subsistence of the subscribers. Therefore, in the first place, we have the example of those other countries, and I cannot help observing, as I pass along, if we hexample of those other countries, and I cannot help observing, as I pass along, if we hexample of those other countries, and I cannot help observing, as I pass along, if we hexample of those other countries, and I cannot help observing, as I pass along, if we have a subscribe of the subscribers. Therefore, in the first place, we have the example of those other countries, and I cannot help expressing my most earnest hope—I may add in

of their revenues, whenever it will be announced to thism that this society is cetabilished, (Applauss.) Well, then, I think, judging from other societies in this coultry, and they are before them.—Judging from all the materials, leay, we have before them,—Judging from the them activated to the public in general property and labour; and lastly, but I should say chiefly, principally from which we may be permitted to draw an inference, I cannot doubt but if this society shall be stabilished we shall have ample funds, first in the contributions of the public in general property and labour; and lastly, but I should say chiefly, principally from the contributions of the interest themselves, to conduct with perfect success the most extensive operations which are contemplated. The purposes thus the attained, the objects to capast. Now, these purposes have been very will and briefly stated in more than one publication which has emanated from the gentleman to whom I allude. I will take the first, because it is the greatest and more than one publication which has emanated from the gentleman to whom I allude. I will take the result of the publication which has enchanged the publication which the first because it is the greatest and the publication which has enchanged the publication of the publication of the publication which the first because it is the property of the publication which the publication whi

here from a sense of duty, and I am here in the enjoyment of a privilege to take part in such a meeting as this must be to every Englishmen, ulti-mately, if the results we anticipate should be accomplished, a source of the to take part in such a meeting as this must be to every Englishmen, ultimately, if the results we anticipate should be accomplished, a source of the greatest gratification and pleasure. (Hear, hear.) Sir, after the very lucid statement we have listened to from the right hon, gentleman who has just addressed you, it will not be necessary for me to detain the meeting by any lengthened observations. I shall, therefore, content myself by just simply referring to some of the figures at which the mind must be struck in looking at this great and important subject in all its bearings; and we must remember that the coal produce of this country is the great source of its wealth, and that in bringing up to the surface of the ground some 64,500,000 tons of coal, there are employed in that wroutetion 300,000 human beings, and the loss of life, according to statistics that may be relied on, is one life in the working of every 65,000 tons of coals. (Sensation.) Sir, I think these facts speak for themselves, and it is not necessary that I should urge them on any person; they are so strong themselves it is altogether needless. (Hear, hear.) The objects of this association have been also clearly placed before you. It is the desire of the committee forming to-day to bring to bear upon the subject such scientific discoveries as man may be able to provide for the salvation of those lives; the second object the society contemplates is the education of the miners; and the third object is to afford permanent relief in the families of those who will, under any circumstances, probably require that relief in the families of those who will, under any circumstances, probably require that relief in the families of those who will, under any circumstances, probably require that relief in the families of those who will, under any circumstances, probably require that relief in the families of those who will, under any circumstances, probably require that relief in the families of those who will, under any circumstances, probably require that re

has so ably moved.—The resolution was put and unanimously carried.

Mr. GEORGE HAMMOND WHALLEY, M.P., in proposing the second resolution, said: Mr. Chairman, ladies, and gentlemen—It will not be necessary for me to occupy your time for more than a few minutes in moving the resolution which has been entrusted to me, because I appear here in a somewhat different character to those gentlemen who have spoken before. I appear on this occasion as being interested in the meeting, in so far as I do reside in the midst of a large compation of miners, about 40.000 persons, principally I appear on this occasion as being interested in the meeting, in so far as I do reside in the midst of a large population of miners, about 40,000 persons, principally engaged in mining operations in the district of North Wales; and I may say on behalf of those persons—and that is the particular topic on which I would ask your attention—that I do offer my carnest and cordial thanks to the hon, gentleman who presides on this occasion, to the hon, gentleman who has with such remarkable ability and clearness stated to you the objects of this Association; and I do assure them, and assure you, from my knowledge of the mining population of that district, and which may be fairly considered to represent other mineral populations, that they will most fully appreciate the efforts which have been made so disinterestedly and so generously by the gentlemen who have attended here to—day. (Hear, hear.) I venture to say more. Whatever defects there may be in their education at present, and however much the objects of the Association may be in that respect attended with success, they are already sufficiently educated to appreciate any proposals that may be laid before them of a practical character of this description; and they will most cordially respond to those proposals by doing their part in this movement. (Hear, hear.) All that is wanted—and perhaps these observations may be worthy of your attention—by those people is that a movement of this kind should have the sanction of such gentleman who occupies the chair—a gentleman scarcely as well known by his wealth, his position, and ability, as by the great benevolence by which he has been entrusted; sanctioned also by the hon, gentleman who moved the first resulution, perhaps still better known as having a character second to no man in the kinerod as take—the proposing a scheme like this and its submitting submitting to no man in the kinerod as take—the proposing a scheme like this and its submitting submitting the proposition in the kinerod as take—the proposing a scheme like great benevolence by which he administers for the benefit of his fellow-countrymen the great wealth with which he has been entrusted; sanctioned also by the hon, gentleman who moved the first resistation, perhaps still better known as having a character second to no man in the kingdom at stake—the proposing a scheme like this, and in submitting to the country with the sanction of his name a proposal of this kind, all that is wanted in addition to the benefit of their support is considerably enhanced by the circumstance that they are not interested—that they are not connected directly with coal mines—that they come before the country more as Englishmen, ready to devote the high position they occupy to an object which has so lately attracted the attention of every one. (Hear, hear,) I, therefore, believe that this movement is inaugurated under the best benefited I can speak of from personal acquaintance. I have no greater pleasure than in mixing with them every hour: I mix with them in their local organisations, their benefit and sick clubs, and savings banks; and I repeat there is no class who have more intelligence, or who bring a more practical judgment to bear on what concerns their own interests than the class of miners; and all that is requisite to enable them to contribute their part is that the proposal should emanate from persons in whom they can have confidence; and, taking them altogether, no better men can be found than the gentleman occupying the chair and the hon, gentleman who proposed the first resolution (Applause.) I will not occupy you time further than by stating one other circumstance which has occurred to me, and which very strongly induces me to think this society will be attended with success. It is this, the cause of this immense sacrifice of human speak with some degree of confidence—the main cause of this immense sacrifice of human speak with some degree of confidence—the main cause of this immense sacrifice of human speak with some degree of confidence—the main cause of this immense sa

life employed in mines in England, Scotland, and Wales, and one of the wealth of the country, is not the carelessness of the men, by education so much as in inducing the owners of collieries to the expenditure of money, proper means of ventilation. (Apples to say is this, you will have seen the various proposals for the pdanger in that respect—namely, by increasing the number of it there shall be two shafts, so as to ensure ventilation. But be it metals are not means at the disposal of the Government, or of those objects can be ensured that will be nearly as effective, moral control of a society of this kind, presided over by such in to-day. (Hear, hear.) It is a mere question of expense. If cosing the objects can be ensured that will be nearly as effective, by one pit than two, of course they will naturally be inclined in the will have recourse to artificial means to force down sign and a collision between them and the authorities, that two shafts with an amount of difficulty in carrying it out, that you can be describe,—when it is put to them as a matter of compalsion by inspection of a colliery inspector, to incur a very large expectitle, from my own knowledge of coalowners. If, in addition one as the miners can received from Government in this respect, the stabilabed to exercise a moral control by their agents and public tion respectfully, but still with a degree of force commensural power we can gather about us, that will be the English mode of satisfactory mode, and I believe it will be a far more effectial in the hands of the Government. (Hear, hear.) I be gleave to than and I beg to repeat, on the part of the population with whom, I for whom I have an amount of respect and regard, that it is different in the respect of the proper of the population with whom, I for whom I have an amount of respect and regard, that it is different in the second educational advantages to the ining open proper we we calcustion and advantages to the residuation and who was alway to appreciate on an operation."

The Rev. J. P

The Rev. J. P. GELL: Mr. Chairman, ladies, and gent who was brought up in the midst of miners, who from his bylod a very great interest in that large and important section of our fills trymen, I have looked on with the highest satisfaction and delay progress of the present movement, and I trust to day a standards in the metropolis which will concentrate all the forces of the more will will give it a direction that shall hinder our forces from being he progress of the present movement, and I trust to-day a stand the metropolis which will concentrate all the forces of the will give it a direction that shall hinder our forces from that may make us in a very few years sensible of the extrement of this particular work. (Hear.) This has been already put below; complete a manner that it is not necessary that the ground should be well as the property of the present of this particular work. (Hear.) This has been already put below; complete a manner that it is not necessary that the ground should be well as a relabouring under our feet and out of our sight a strong and sialware of men who have never yet been taught to act together, and who of the present movement to give the power of working out through personal advantages for themselves, and to secure the progress of may come after them. (Hear, hear.) With these views before a striking contrast to the way in which things are done in England as Whereas, in Prussia legislation has done its part, through the said the political subject, which is recognised; but beyond the political subject, which is recognised; but beyond the political and element here which I think is wanting in those countries—at they are little conscious—a binding and united element, an element in England, which connects men of great importance with the more present of the progress of the province of the best feeling which we are called on at the present occasion to put forth, in give a head and force to what at present is prominenty struggle plause). The miners feel their wanta; already a friendly light is pointing out the direction in which they must move, but unless the meeting which is assembled here to-day, unless we go something by the way and the same of the present is prominently struggles plause). The miners feel their wanta; already a friendly light is pointing out the direction in which they must move, but unless there are sympathies ready for them, and is low-men, but that there are sympathies ready for them, and is low-men, but that there

Colonel Knox, M.P., proposed the third resolution. Had they not appalled last winter by some of the most calamitous accidents the berhaps, ever occurred in any country? and it has brought for amount of sympathy which could not have been evoked in any other calls the short of London. perhaps, ever occurred in any country? and it has brought forms amount of sympathy which could not have been evoked in any other a try but England. (Hear, hear.) He was glad to see the Sherif of Loden, perpresenting the great body of the citizens of London. He thought great stress of being the contemplated bringing in a bill on the subject ofts be laid on Government, who contemplated bringing in a bill on the subject ofts lation of mines, to complet the owners to make a proper supervision of the real before the mine was worked. He believed if this were adopted a great many in before the mine was worked. He believed if this were adopted a great many in the following the subject of the sub

The Rev. Mr. HAWTAYNE seconded the resolution, when was as a namously agreed to.

Mr. WAKEFIELD, in proposing the next resolution, said—Afteral has been said, and so well and eloquently, said on this subject, it was unseasonable for me now to add much; but, at the same time, is help observing that it does appear strange that amongst all the vash, may say the vaunted, charities of the land so little appears to have done for this important class of our fellow-creatures, upon whose labely appears that the glory and the power of this courty. (Appliance) does not a extent the glory and the power of this courty. (Appliance) Without our coal the greatness and power of this courty, (Appliance). Without our coal the greatness and power of Engineering words. (Appliance). Without our coal the greatness and power of Engineering was the court of the c tuted for the purpose of promoting their interests and amendament. They are naturally prevented from combining together in the associations, like other classes of workmen, for the purpose of price and interests and improving their social condition; and, therefore, in great and interests and improving their social condition; and, therefore, in the special regards on our sympathy and upon our support; and it is be made to the public, and goes forth with the sanction of such in the sa o the public, and goes forth with the sai countenancing the movement, the public will generously resultance.

Now, in particular, as to that sum which has been aiready collected for take.

Now, in particular, as to that sum which has been aiready collected for take.

In the public sum of the public sum of the public sum of the sum of the case.

Just as I was coming to the raised, or was required by the case.

Just as I was coming to this meeting, I met Mr. John Bright, the case.

Just as I was coming to this meeting, I met Mr. John Bright, and he could not believe the great majority of the persons who have continued and he could not believe the great majority of the persons who have continued from would not once sanction the application of a part of it tests to the suffund would not once sanction the application of a part of it tests to the suffund would not once sanction the application of a part of it tests to the suffund would not once sanction the application of a part of it tests to the suffund would not once sanction the application of a part of it tests to the suffund would not once sanction the application of a part of it tests to the suffund would not once sanction the application of a part of it tests to the suffund would not once sanction the application of a part of its present of the Gethin accident. And I think, as the practical and immediate object of the Gethin accident. And I think, as the practical and immediate object of the Gethin accident. And I think, as the practical and immediate object of the Gethin accident. And I think, as the practical and immediate object of the Gethin accident. And I think, as the practical and immediate object of the Gethin and the Gethin and the Gethin accident. And I think as the practical and immediate object of the Gethin and the Gethin

Mr. Henry Pease, M.P.: Sir, the last speaker has referred who may be connected with the mining interests. Now, it is my intimately connected with the mining interests in the country of and not only the dissistence in which you had been also the direct intimately connected with the mining interests in the coarse and not only the district in which I reside, but also the discounty which I have the honour to represent, is very largely the result of mining operations, and in the condition of the mare, consequently, a class of the community which have my most sense interest (hear, hear); and I am sure, if the laddes and sendence, the more of them than by the result of their labours at the own fresion, qualited with them, they would be more interested in them than they even by the eloquent speeches they have heard delived. Own fine the description of men who do not know anything of the sympathies of the description of men who do not know anything of the sympathies who have no means of associating with one another with regard to set who have no means of associating with one another with regard to set while a consideration of the council shall find it part of their advantages to which a consideration is the control of the council shall find it part of their advantages to which are considerated and the control of the council shall find it part of their advantages to which are considerated and the control of the council shall find it part of their advantages to which are considerated in a superior of the council shall find it part of their advantages to which are considerated in a superior of the council shall find it part of their advantages to which are considerated in a superior of the council shall find it part of their advantages to which are considerated in a superior of the council shall find it part of their advantages to which are considerated in a superior of the council shall find it part of their advantages to which the most earnest desire—I can only speak by implication, not by known that the constant of the council shall find it part of their advantages to which are considerated in the constant of the constant of the constant of the council shall find it part of their advantages to which are constant of the constant of the constant of the constant of thei

Itheral for regard to with a comment of miners life, and a time in f sure the with gre in what, — I speal very far in what, to some a do him p the mine we have see after do not sp rations, a Sir F

planation priately a as his ow country w wise neglethan of ar and I will applied in great leng tion of the the hou. for the go On th The C fying him much he l from the l bury, Lord J. Lock, 3

> The fe ney, Pres has been MY LOR

Mr. T

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he extra

liberal fund has been raised, and suggestions have been thrown out to the public with regard to the use to be made of the money. That subject has been considered in the North, with a desire that it should be the nucleus of a universal fund, provided it can be so with a desire that it should be the nucleus of a universal fund, provided it can be so of miners in the various districts, and their desire to contribute, their average length of of miners in the various districts, and their desire to contribute, their average length of mentify, and a multitude of other things, it cannot readily be determined how the fund can life, and a multitude of other things, it cannot readily be determined how the fund can life, and a multitude of other things, it cannot readily be determined how the fund can life, and a multitude of other things, it cannot readily be determined how the fund can life, and a multitude of other things, it cannot readily be determined how the fund can life, and a which be sould have called, in his early days, a demurrer to a part of his remarks, in which we are decided on the care of the children in the colliery districts. I am and I shall feel it as a great honour, to pay me a visit in the North, I will introduce him and I shall feel it as a great honour, to pay me a visit in the North, I will introduce him and I shall feel it as a great honour, to pay me a visit in the North, I will introduce him and in the work of the same and a shall be a sould be some as good schools, and as nice a set of children, and as well educated, as it would be some as good schools, and as nice a set of children, and as well educated, as it would be not speak of this as an isolated instance, because we have not only schools, but the mines in which we are more particularly interested, we have not only schools, but the mines in which we are more particularly interested, we have not only schools, but the mines in which we are so solveners that there is an intelligent and generous appreciation of what is due to those conforme

Sir Frizhov Kelly: I may be allowed to offer a single word of ex-Sir FTTZROY KELLY: I may be allowed to offer a single word of explanation on what has falten from the hon, gentlemen who has so very ably and appropriately addressed you. I rejoice very much to hear, and on such excellent authority is his own, that the education of the children of the miners in, at least, the part of the solurity which has the good fortune to number him amongst its inhabitants is in no wise neglected. (Hear). I spoke on information rather derived from particular localities than of any general character. I repeat I am exceedingly happy to be corrected by him; and I will only add that should this society be established, and funds provided to be asplied in part towards the education of the children of the minery. I trust before any grast length of time shall have elapsed in every mining district of England the education of the children of miners will be as well and amply provided for as in that in which the hon, gentlemen is interested. (Applause).

Mr. W. M'GAREL could speak for Lady Londonderry, and could vouch at the good she did by the education of the children on her property. (Hear.)

for the good she did by the education of the children on her property. (Hear.)

On the motion of Mr. ROBERT COCKS, of New Burlington-street, a vote of thanks to the worthy Chairman was passed with acclamation.

The CHAIRMAN, in returning thanks, said, at first he was slow in identifying himself with the society, as he had nothing to do with mining, little thinking how much he had to do with it. He did not now regret joining, and he should give his strenges support of the association. (Cheers). He had received several letters of apology, which more properly ought to have been read at the commencement of the meeting. He would not detain them then, merely observing, however, that amongst others were letters from the Blabop of Durham, the Blahop of Oxford, the Blishop of Rignon, Earl of Shaftesbury, Lord Stanley, Frank Crossley, M.P., W. Williams, M.P., W. Scholefield, M.P., and J. Lock, M.P., all of whom expressed sympathy with the meeting.

Mr. Towers, having read over the list of subscriptions received that day,

THE HARTLEY COLLIERY FUND.

THE HARTLEY COLLIERY FUND.

The following correspondence, which recently passed between Mr. Gursey, President of the National Association for the Relief of British Miners, and the Lord Mayor, on the subject of the balance of the Hartley Fund, has been forwarded to us for insertion:—

26, Princes-gate, Hyde-park, W., March 21.

My Lord,—A very large sum, exceeding 70,000t., has been raised, nominally for the sufferers from the late dreadful accident at Hartley. The largeness of the sum is one of the strongest indications of the innate and spontaneous benevolence of English hearts.

270 lives were sacrificed at Hartley, and 407 persons left destitute. When the full extent of the accident was ascertained, it was estimated—upon a very liberal computation—that 30,000f, would adequately meet all the requirements of the case. More than fossible that sum has been realised, and, as actual provision has been made for all who was left destitute, within the limits, I believe, originally specified, it is plain that a balance of upwards of 40,000f, remains unappropriated.

Now, assuming the facts I have stated to me correct, a very important question presents itself, viz.—to whom should the management of the large surplus, which is not needed at Hartley, the committed? I take for granted the Hartley committed and Now assuming the facts I have stated to me correct, a very important question presents itself, viz.—to whom should the management of the large surplus, which is not needed at Hartley, the committed? I take for granted the Hartley committed and Now assuming the facts of the second of the sec

Mansion House, London, March 25, 1862.

Mansion House, London, March 25, 1862.

Tealing, on the subject of the Hartley Collery Fund, I beg to say that, in accordance that he public announcement I made on Tuesday, the 18th, in the Justice-room, I paid we the balance on Saturday, and now the matter is entirely out of my hands, and in a control of the local committee.—Samuel Gurney, Esq. WILLIAM CUSITY.

Mansion House, London, March 29, 1862.

Mansion House, London, March 29, 1862.

Stoyour last note on the Colliery Fund question; but, if so, I have to apologies for last, and to say that I fully consent to publishing the correspondence. W. Cuerr.

WICKLOW COPPER MINING COMPANY (LIMITED).

subject, it wo me time, I of t all the vast

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the extraordinary general meeting of shareholders, adjourned from March 18, was held saurday, Mr. John Barron in the chair.

he straordinary general meeting of shareholders, adjourned from March 18, was held starday,

Mr. John Barton in the chair.

Mr. John Barton in the chair.

Mr. John Barton in the chair.

Mr. Garman explained that the purpose of this meeting was to receive the directors at the committee of shareholders report on the questions with respect to the legal state involved by the proposition to amalgamate the Wicklow Copper Mining Company the Hibernian Mining Company. The committee of directors and shareholders are all difficulties and promote the state of the committee of directors and shareholders are meeting of proprietors, at which the above resolution was passed, your telms and committee have carnestly co-operated in investigating fully the proposal to impress the meeting of proprietors, at which the above resolution was passed, your telms and committee have carnestly co-operated in investigating fully the proposal to impress the meeting of proprietors, at which the above resolution was passed, your telms and committee have carnestly co-operated in investigating fully the proposal to impress the state of the two company with the proposal to impress the state of the two company in the company with the company with a state of the wild and the company for the shares of the shares in the wild interest of the shares of the shares of the shares in the wild interest of the shares of the shares in the wild interest of the shares of the shares in the wil

Round.

RANKEL Howe begged to propose a vote of thanks to the Chairman and the
RANKEL Howe begged to propose a vote of thanks to the Chairman and the
Rankel Howe were likely soon to be in a very satisfactory rate.—Mr. MARTIN
RANKAR returned thanks on the part of the committee of shareholders and himhop proceedings terminated.

Inno And Smelting Glossary.—Now ready, price 2s., a New thos, enlarged, of The Emolish and Foreign Mining Glossary; wish is added the Smelting Terms used in France, Spain, and the company Published at the Mining Journal office, 26, Fleet-street, and the obtained through all booksellers and newsmen.

SALES OF COPPER ORES.

SALES OF COPPER ORES AT THE CORNWALL TICKETINGS, FOR THE QUARTER ENDING MARCH, 1862.

	Tons.		Amount	t
Devon Great Consols	6332 3629	********	£25,792 10 17,954 10	6
South Caradon	1332	*******	12,608 13	0
West Wheal Seton	1574	******	9,332 9	
West Basset	1401	*******	8,099 18 7,962 7	
West Caradon	1038	*******	7,962 7 7,625 18	0
Fowey Consols	1008	******	6,708 14	6
Par Consols	800	*******	6,177 8	
Wheal Basset	785 1912		5,583 10 5,186 2	
Marke Valley	1156	*******	5,083 19	6
South Tolgus	643	******	4,815 0	
Holmbush East Carn Brea	712	*******	4,130 17	
North Downs	500	*******	3,744 18	6
South Frances	609	******	3,691 4	0
Craddock Moor	497	*******	3,369 17	
Wheal Seton	661	*******	3,264 9	0
Bedford United	647	*******	3,156	
North Roskear	447	*******	3,042 6 2,986 7	
Hingston Down	723	*******	2,970	0 5
Alfred Consols	590 562	******	2,932	
North Treskerby	781	*******	2,566	
Wheal Emma	437	*******	2,347 1	5 6
East Russell		******	2,325	
Wheal Polmear	351	*******	2,287 10 2,218	
East Pool	528	******	2,014 16	8 0
Wheal Buller	307 422	*******	1,995 13	8 6
East Crinnis and South ParGreat Wheal Alfred	601	*******	1,982 1	
Copper Hill	394	******	1,970	5 6
Wheal Margery	224	*******	1,938	6 6
North Wheal Robert	240	*******	1,892 1	
Lady Bertha	500	*******		5 0
Gunnis Lake			1,614	1 0
Levant	295	*******	1,592 1	3 6
Great South Tolgus	198	*******	1,585 1	9 0
Carn Brea East Rosewarne	167	*******		8 0
Great Wheal Martha	687	*******	1,425 1	1 6
Wheal Crelake	427	******	1,423 1	9 0
South Crinnis	325	********		9 0
Tincroft	423	*******	1,162	0 6
West Stray Park	158	*******	1,148 1	3 6 5 0
Charlotte United	1.55	*******		
St. Day United	291			8 0
North Crofty	215	*******		
North Basset	184	*******	913	6 0
Sortridge Consols	133	*******	853 1 829 1	
Brookwood	298	*******	812 1	9 6
East Alfred Consols	173		762 1 751	1 6
Okel Tor	298	*******		8 0
Tolcarne Treworlis South Bedford	177	********	730 1: 713 1	
South Bedford	245			
West Fowey Consols	80	*******	640	0 0
Botailack	106	*******		8 0
BotailackRosewarne United	. 83		573	0 0
Yarner				3 0 5 6
Calstock Consols	180			5 0
Hawkmoor	92	*******	513 1	5 0
Camborne Vean	121			1 0
Treloweth	. 72	*******		1 0
Furadon	. 79 . 55	*******		7 0
South Crenver	125		398 1	2 6
Stray Park	69	******	386 1	9 6
Wheal Arthur	130	*******		1 0
Dolcoath	92		336 1	6 0
Treffry's Regulus	93	*******	333 1: 333 1:	8 0
Wheal Crebor	85		329	7 6
New Treleigh	75			8 0
Wheal Grenville	37	*******		
Molland	. 50	*******	276	5 0
Burra Burra	115	********	261 260	
West Tolons	59	*******	237 1	8 0
Grambler and St. Aubyn	35	********		0 0
Gawton Copper Grambler and St. Aubyn Duchy and Peru South Crofty Wheal Moyle	65		224	2 0
South Crofty	. 62			
Which Ony	. 40			4 0
West Alfred Consols	. 92	*******	192	3 6
South Dolcoath	91			
Western Counties Co. Regulus	. 65		175 1	0 0
Wheat Anna	. 52		166 1 153 1	
Collacombe	. 24	*******	151 1	6 0
Carn Camborne	. 24			8 6
Great Crinnis	. 34	*******	119 1	7 (
Great Crinnis South Wheal Basset New Wheal Hendre	. 50		121	8 (
Harvey's Ore	. 82	*******	111 1	0 (
Devon and Cornwall	. 50	*******	107 1	0 (
South Carn Brea	. 14		107	9 (
South Carn Brea Camborne Consols. Falmouth and Sperries Pedn-an-drea	. 11	*******	99 1	6 6
Pedn-an-drea	26			
Trenill	• .00	*******	91 1	2 (
Great Work	. 10	*******	91 1	0 0
East Wheal Grenville	. 28			
Providence Mines	. 10		80 1	
Wheal Kitty	. 10		78	5 (
North Hallenbeagle	. 11	*******	. 77	2 6
Wheal Harriett	32		73	2 (
Wheal Emily Henrietta	. 10	*******	60	5 (
Wheal Union	. 18			1 6
			. 51	0 (
Bedford Consols	. 21		51 1	
Wheal Trefusis	. 10		51 1	2 (
Old Tolgus United	. 1/		50 1	2 6
East Tolgus	. 11	*******	45	7 6
West Tolvadden New South Ellen	. 5			2 (
Tavy Console	2.1		. 36 1	4 6
Wheal Trannack Creegbrawse Wheal Cupid	. 11		34 1	8 6
Wheal Cupid			32	8 (
East Wheal Charlotte	. 14		29	1 (
Mines Royal Company	a	*******	23 1	0 (
Hender's Ore	. 7		13	6 (
Jackson's Ore	. 52			7 6
				_

Total47915 £242,997 2 6

COMPANIES BY WHOM THE ORES	WERE	PURC	CHASEL).	
Vivian and Sons					
Freeman and Co	827514		16,418	10	10
Grenfell and Sons	4716		30,699	1	-
Crown Copper Company	1508%		8,851	15	1
Sims, Willyams, and Co	6366		33,832		
Willyams, Foster, and Co					
Mason and Elkington					
Bankart and Sons	1458%				
Copper Miners' Company			17,894		
Charles Lambert	4653%		14,458	19	1
Newton, Keates, and Co			3,244	6	-
Sweetland, Tuttle, and Co.	2026		9.573	- 3	71

Total 47915 £242,997 2 6

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SALES OF COPPER ORES.

SALES OF COPPER ORES AT THE SWANSEA TICKETINGS, FOR THE QUARTER ENDING MARCH, 1862.

Mines. BRITISH.	Tons		Amor	- term	
Berehaven				A A	-
					6
Knockmahon				9	0
Union Ore				1	6
Bristol Regulus			306	16	-0
Mixture	. 38		240	7	0
London Slags			200	4	6
Glasgow Siag				0	č
Burnt Ores				8	
					0
Holyford				18	-
Copper Dross		*******	25	0	(
Erin's Ore	. :		. 3	18	(
Total	. 290		£28,132	19	(
COLONIAI					
Ookip			£11,846	10	-
Wheal Maria					1
Springbok	. 81				-
English and Canadian	. 3				-
Great Northern Mining Co. of Australia			1,031	12	- 6
Spectakel	. 3				- 1
Trump Island					i
New South Wales					ì
African		*******	13	5	(
Total	107	5	£27,873	12	-
FOREIGN					
Cobre	999		£41 #00	110	-
Cuba					-
Californian		3			
Genoa	. 15		1,140	13	- 6
Seville	. 18				-
Turkish	. 1				i
Spanish					
					1
Tuscany	1	0	40	5	-
Total	570	2	£75,981	6	(
RECAPITULAT	MON.				
British	290		£28,132	19	-
Coloniai					-
Foreign	870				1
	010	2	75,981	6	_
Total	968	1	£131,987	17	-
COMPANIES BY WHOM THE OR	PC W	PDV DITE	CITAGE	n	
COMPANIES IN WARDE THE OR	Tons				
Connect Mineral Commencer				oun	
Copper Miners' Company	5591		£ 9,333		2
Freeman and Co	771	-12	11,629		1
P. Grenfell and Sons	2033	7-12	28,187	15	11
Sims, Willyams, and Co					-
Vivian and Sons					1
Williams Fostor and Co.	0150	70	22,001		
Williams, Foster, and Co	2108				-
Mines Royal Company	68	*******			- (
British and Foreign Copper Company	191		1,761	19	-
Mason and Elkington					1
Charles Lambert					i
Sweetland, Tuttle, and Co	340				
		******			9
Jennings and Co	95	******	1,335	11	(
Total	9681		£131.987	17	-

Total..... 9681

a further illustration of the inferiority of external to internal firing, and would point out that every one of the five explosions reported during the last month happened not to internally but to externally fired boliers, and am increasingly impressed with the fact that this district has done wisely in selecting the Cornish type of bolier in preference to the plain cylindrical egg-ended one, and that not only on the ground of efficiency and economy, upon which there can be no question, but also as regards asfety."

FOREIGN MINING AND METALLURGY.

We return to M. Petitgand and his observations on the mineral treasures of the South of Spain. In connection with the group of Monténégro must be mentioned the coppers of Jérés, Finana, Oceana, and Nacimiento. These ores contain the elements of successful working, but commerce in copper minerals, which is regulated by England, has not been considered to present sufficiently remunerative aspects to enable these mines to assume at present a very great development, and they are besides, like all the rest of the country, difficult of access. It is the same with bearings of a similar nature on the Sierra Alhamilla and the Sierra d'Oria; but, notwithstanding this, the extraction effected has been at the annual rate of 600 to 700 tons of minerals, of an average standard of 12 to 16 per cent. The port of Alméria is the natural outlet for these products. The Sierra Altons of minerals, of an average standard of 12 to 16 per cent. The port of Alméria is the natural outlet for these products. The Sierra Alhamilla comprises besides a great number of threads or veins of galena. At the southern extremity of the long chain of mountains to which M. Petitgand refers, and in those of its ramifications known as the Sierras de Mujacar and Cabrera, vast deposits of carbonated iron are met with. The most remarkable are the bearings of Carbonera, Ferreila, Fraile Masséna, &c., which, in consequence of their proximity to the sea, are very actively worked, the produce being exported to England, and ironworks in the South of France. The plombiferous veins mentioned in the other localities to which attention has been directed loss their value, however—at any rate to which attention has been directed lose their value, however—at any rate to which attention has been directed lose their value, nowever—at any rate relatively—ns soon as the bearings of the Alpujarras are reached. This is the great metalliferous region of the district, of which it occupies the central part, parallel to the Sierra Nevada and the shores of the Mediterranean; and it comprises a series of abrupt mountainous chains, with deep ravines running from east to west. The whole are united by the plains of Rio-Andarrax and the hills of Laujar and Ujigar, which mountains, known under the pages of the Sierra de Gador. Contraviers, and Luiar cover all under the names of the Sierra de Gador, Contraviesa, and Lujar, cover all the space between Alméria and Motrill. Adra, with its great reduction works, is placed at an equal distance from these two towns, in the neighbourhood of the principal workings. The place has preserved the advantages of its position, notwithstanding the rivalries by which it has been assailed, since discoveries were made in the Sierra Almagrera, and more results since quality important explorations were effected in the previous cently since equally important explorations were effected in the province of Carthagena. The surface of the Alpujarras is composed of an infinity of mountain chains with sterile slopes, intermingled in the most contrary directions, cut up with deep defiles, destitute of wood and water, and presenting no traces of roads. The Sierra de Gador is the most interesting and the most distinctively characterised of all this district, and in the and the most distinctively characterised of all this district, and in the mountainous ranges nearest the sea, stretching also to the parts most distant from it, immense workings are carried on, which for the last 40 years have given life and animation to a spot formerly a desert, and which have made, as by enchantment, rapid fortunes. Talcous, or micaccous schists of various tints, from grey to the colour of the lees of wine, constitute the base of the lands which have yielded such great results, and which are formed of argillaceous slaty schists, conglomerates, crystalline, and compact black calcareous matter, &c., in the midst of which are found deposited, in the nature of beds, the metallic masses, which are of varied structure and different richness. According to M. Amalio Maestre, who has given, if not the most exact, at any rate the most satisfactory description of these beds; they are so connected together that they seem to form a vest metallic map, except where later disruptions have destroyed the uniformity, and created several distinct stages, without apparent relation to each metallic map, except where later disruptions have destroyed the uniformity, and created several distinct stages, without apparent relation to each other. This hypothesis could only be verified by an examination of the whole of the workings, which is not possible with the rules now in force, but all the opinions expressed on the subject point to the same conclusion—the prodigious richness of the bearings.

The Sierra de Gador presents the form of a parallelogram, about 25 miles in length by 8 or 10 miles in breadth. The mineral bods occupy in the first line the western part of this surface, commencing at the plateau of Laujar and the banks of the Rio Andarrax, which there takes its rise; and they are enclosed by the territories of Dalias and Berja, extending over a space of 25 square miles or more. The ground has been turned up

over a space of 25 square miles or more. The ground has been turned up at every step, covered with rubbish, and riddled with pits, for the purpose of developing the famous workings, among the most celebrated of which—out of a great number which either have been or are still carried on—may be ned the Lomna del Sueno, the Lomna del Vicario, the Pecho de L mentioned the Lomna del Sucno, the Lomna del Vicario, the l'ocho de Lastres, the Loma del Guijo, the Hoyo de Barcos, the Morgana, the Hoya de Martos, the Hoya de los Hatos, the Solana del Fondon, the Canada de Guijarrales, &c. The castern part of the Sierra, without having exhibited equally brilliant results, has also enjoyed considerable fame and reputation; it is represented by the Loma de la Fuente, the Hoya Pocico, the Loma del Plana, the Cerro Gordo, the Loma de la Capitana, the Loma de best of other workings, which we have scarcely space to particularise. We have further details yet to give with respect to the lead, copper, &c., of this wondrous Sierra de Gador.

The threatened, but scarcely actual, hostilities with Mexico, have had

The threatened, but scarcely actual, nosilities with mexico, have not the effect of directing increased attention to the mineral riches of that country, the resources of which have hitherto been, it is to be feared, but very imperfectly developed, although it is a district in which the precious metals are spread with more lavish profusion than in any other part of the globe. The mining localities which are the richest in gold are those of Guanaxuato, Sonara, and Cinaloa; and silver abounds in Zacatecas and Guanaxuato. St. Luis de Potosi, so rich at the commencement of this cartery is row producing almost nothing. In the wear convised of this century, is now producing almost nothing. In the years comprised between 1800 and 1830, the value of the products of the gold mines of Mexico was estimated at 6,436,4534., and the yield of the silver mines in Mexico was estimated at 6,436,4534, and the yield of the silver mines in the same period was estimated at 139,620,000l. These totals do not comprise the shipments made by smugglers, which at the commencement of this century were estimated at 1-30th, and which are now set down at 1-15th of the total value. Iron, it appears, has not been worked in Mexico since 1820. Copper yields very abundant results, but the working of all these riches is still carried on very imperfectly, both capital and labour being wanting; and worse than all, that security for property having no existence without which all enterprise is stricken with languor and sterility. Spain is a country equally favoured with Mexico as regards the richness of its mineral products, but the same adverse influences have been at work among the Spaniards, and have to a great extent produced the at work among the Spaniards, and have to a great extent produced the same results; and it is only of late years that a revival of industry, led and encouraged by French and Belgians, has tended to completely trans-

and encouraged by French and Belgians, has tended to completely transform the condition of a naturally very richly endowed country.

Within the last few days a new trial has been made, at the desire of several French mining engineers, of the perforator invented by M. Lisbet, for piercing mine borings in granitic rocks. It appears that the results obtained indicated a boring of nearly \(\frac{1}{2} \) in. in four minutes, and the experiment showed the necessity of certain small modifications of the apparatus, which have since been carried out. M. Jacquet, the constructor of the perforator, believes that he shall now be able to perforate similar rocks in less time, and also with less difficulty.

An imperial decree with respect to the free entry of certain categories of irons into France is expected to open a great future to several execute.

of irons into France is expected to open a great future to several special Belgian establishments—among others, to those which fabricate fine thin plates, such as those of M. Delloye at Huy and Ougrée, who have atplates, such as those of M. Delloye at Huy and Ougrée, who have attained such a high reputation, while at the same time they have maintained prices at a point at which competition can be carried on with difficulty. M. Delloye's ancestors were forge masters and manufacturers of plates at the commencement of this century.

A CONDENSED AIR LOCOMOTIVE.—A new kind of locomotive engine A CONDENSED AIR LOCOMOTIVE.—A new kind of locomotive engine was tried with perfect success on the Nicolai line, St. Petorsburg, on March 16. The motive power was condensed air, and the trial was made to ascertain the adaptability of the engine in working the line. The inventor is named Baranowaki, and the machine consists of a framework, with a reservoir for condensed air, and a number of tubes running above and below it. The trial trip was made with a carriage filled with passengers, and gave a very satisfactory result as regards speed, for the carriage was drawn at about 25 English miles an hour, and the inventor asserted that a greater speed can be attained, as his engine was originally built for a screw steam-ship, and much power was lost by the intervention of cog.-wheels, which would not be necessary in a properly constructed engine.

Among the articles sant from Snain for the Universal Evaluation is an

Among the articles sent from Spain to the Universal Exhibition is a mechanical hand, invented by an Andalusian artist, which enables the wearer to pick is the smallest objects, and even is write, merely by the impulse of the muscles and nerv of the arm. The efficiency of this invention has been proved by experience, in present of the Minister of Public Works.

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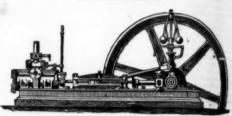
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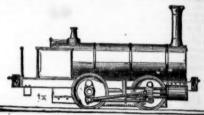
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